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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/363,025 | 07/29/1999 | MASAHITO YAMAMOTO | 38.C13711-US | 7597 |

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

LIN, WEN TAI

| ART UNIT | PAPER NUMBER |
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2154

DATE MAILED: 07/09/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/363,025

Applicant(s)

YAMAMOTO, MASAHIRO

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 101-124 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 101-105, 107-116 and 118-124 is/are rejected.
- 7) ☒ Claim(s) 106 and 117 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. Claims 101-124 are presented for examination.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

U.S.C. 103 Rejection

3. Claims 101-103, 110, 112-114, 121 and 123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki [JP11-110143-A] in view of Tahara et al. (hereafter "Tahara") [U.S. Pat. No. 6134580].
4. Yoshiaki's abstract was cited in the previous office action.
5. As to claims 101-102, Yoshiaki taught the invention substantially as claimed including: an office apparatus which can be connected to an external apparatus via a network, said office apparatus comprising:

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- reception control means for controlling a reception process of receiving agent information including a command train and data [page 7: paragraph 2, lines 1-9];
- control means for controlling a processing mechanism of said office apparatus by executing, based on the command train included in the received agent information, a control program that controls the processing mechanism [page 7: paragraph 2, lines 9-17; page 19, paragraph 12];
- memory management means for managing a memory area for executing the command train included in the received agent information [note: it is obvious that Yoshiaki's system must have a memory management means, held under the operating system, for reserving a memory area for the execution of a printing job, because each printing job requires memory space for storing data and the execution programs];

Yoshiaki did not specifically teach:

- a transmission control means for controlling, responsive to said control means terminating execution of the control program based on the command train, a transmission process of transmitting a process end notice to the external apparatus so as to cause a display unit of the external apparatus to display a process end confirmation window; and
- obtainment means for obtaining a reply to the process end notice from the external apparatus, wherein said memory management means releases the

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memory area for executing the command train included in the received agent information in response to said obtainment means obtaining the reply from the external apparatus.

However, it is well known in network printing that a user can cause a pending or queued printing job to be aborted, and in response the user terminal is presented with a dialog box prompting for confirmation of the cancellation attempt. Further, Tahara taught an agent-oriented system with GUI display window [e.g., Fig.6] for displaying/control agent status and execution results [co.15, lines 17-21; col.16, lines 52-62].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have adopted a similar GUI display in Yoshiaki's system because aborting a printing job or controlling/accessing agent status is a critical decision requiring the user's interaction, thereby preventing any inadvertent operation in Yoshiaki's system.

Further, Tahara taught that unnecessary memory is released following the deletion of an agent process [col.14, lines 58-61; col.16, lines 21-30; col.24, lines 32-59; note that both the local and remote nodes need to delete an agent at its completion, which can be embedded as a script command and carried out by the execution machine].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have adopted a similar memory-releasing procedure in

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Yoshiaki's system, so that the reserved memory space could be reused by a follow-up task.

6. As to claim 103, Yoshiaki taught that the office apparatus further comprises an execution means for executing the command train to determine whether a result of processing by the processing mechanism is an unrecoverable error, and if the result of processing is an unrecoverable error, writing the occurrence of the unrecoverable error to a memory area which is dynamically reserved for the agent information as a data field [claim 4 on page 6, claim 10 on page 8 and paragraph 25 on page 25].

7. As to claims 110, 112-114, 121 and 123, since the features of these claims can also be found in claims 101-103, they are rejected for the same reasons set forth in the rejection of claims 101-103 above.

8. Claims 104-105, 107, 109, 111, 115-116, 118, 120, 122 and 124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki [JP11-110143-A], as applied to claims 101-103, 110, 112-114, 121 and 123 above, further in view of Minami et al. (hereafter "Minami") [U.S. Pub. No. 2002/0042810].

9. As to claim 104, Yoshiaki taught the invention substantially as claimed including: an office apparatus which can be connected to a network comprising:

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- reception control means for controlling a reception process of receiving agent information including a command train in which a document printing job is divided as a series of processes to be executed in a plurality of office apparatuses [paragraph 10 on page 18];
- control means for controlling a processing mechanism of said office apparatus by executing, based on the command train included in the received agent information, a control program that controls the processing mechanism;
- execution means for executing one of the series of processes described in the agent information to be executed in said office apparatus [paragraph 11 on page 18]; and
- transmission control means for controlling, responsive to said execution means terminating execution of the one process, a transmission process of automatically transmitting the agent information to an external office apparatus so as to cause the external apparatus to execute the command train based on the partitioned tasks [paragraph 13 on page 20].

Yoshiaki did not specifically teach that the printing job is described in a workflow fashion wherein a first office apparatus executes a first process and second office apparatus execute a second process after completion of the first process.

However, Minami taught a mobile agent technique for performing sequential processes by moving the agent from one place to another, causing execution of

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predefined tasks at different places [Abstract; paragraphs 17-20]. In light of Minami's teaching, it is obvious that Yoshiaki's office apparatus tasks may also be programmed in the same workflow fashion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that Yoshiaki's system can also be made to carry out multiple printing jobs described in a work flow environment, because by so doing it provides Yoshiaki's system another dimension of partitioning a complicated task, wherein each partitioned process may require different hardware, which results in fewer need for duplicated apparatuses while achieving the same goal of parallel processing.

10. As to claim 105, Yoshiaki in view of Minami taught that the system further comprises management means for managing information indicating which process or processes of the series of the processes described in the workflow have been processed [Minami: paragraphs 20-21 and 139].

11. As to claim 107, Yoshiaki further taught that said transmission control means controls the transmission process to copy the agent information in whole or in part and distributes the copied agent information to at least one external office apparatus such that the series of processes described in the work flow may be executed in parallel [paragraph 8 on page 17].

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12. As to claim 109, Yoshiaki taught that said processing mechanism is a print mechanism.

Yoshiaki did not specifically teach that the office apparatus has a plurality of processing mechanisms including image filing and scanner mechanisms.

However, it is well known that a multi-mode office apparatus could provide multiple processing mechanisms for functioning as printer, facsimile and copier, etc. Thus it is obvious to one of ordinary skill in the art that Yoshiaki's printer can be replaced by a multi-mode apparatus, while keeping the aforementioned communication protocol intact, thereby providing multiple functions in the same apparatus.

13. As to claims 111, 115-116, 118, 120, 122 and 124, since the features of these claims can also be found in claims 104-105, 107 and 109, they are rejected for the same reasons set forth in the rejection of claims 104-105, 107 and 109 above.

14. Claims 108 and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki [JP11-110143-A] and Tahara et al. (hereafter "Tahara") [U.S. Pat. No. 6134580], as applied to claims 101-103, 110, 112-114, 121 and 123 above, further in view of Minami et al. (hereafter "Minami") [U.S. Pub. No. 2002/0042810], as applied to claims 104-107, 109, 111, 115-118, 120, 122 and 124 above.

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15. As to claims 108 and 119, since the features of these claims can also be found in claims 101-105, 107, 109-116, 118 and 120-124, they are rejected for the same reasons set forth in the rejection of claims 101-105, 107, 109-116, 118 and 120-124 above.

16. Claims 106 and 117 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Applicant's arguments with respect to claims 101-105, 107-116 and 118-124 on 4/16/2003 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)746-7239 for official communications;

(703)746-7238 for after final communications; and

(703)746-7240 for status inquires draft communication.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

July 7, 2003

Wen-Tai Lin
7/7/03